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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,687	03/07/2000	John Dung-Quang Ly	2705-401	9101

20575 7590 07/05/2007  
MARGER JOHNSON & MCCOLLOM, P.C.  
210 SW MORRISON STREET, SUITE 400  
PORTLAND, OR 97204

EXAMINER
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WON, MICHAEL YOUNG

ART UNIT	PAPER NUMBER
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2155

MAIL DATE	DELIVERY MODE
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07/05/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Notice of Allowability

Application No.

09/520,687

Examiner

Michael Y. Won

Applicant(s)

LY, JOHN DUNG-QUANG

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2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final Amendment filed May 8, 2007 and Interview conducted on May 23, 2007.
2. ☒ The allowed claim(s) is/are 1-3, 8, 12, 13, 20, 21 and 20 (renumbered 1-9).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date Attached.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Graciela G. Cowger (Reg. No. 42,444) on May 23, 2007.
3. The application has been amended as follows:
  1. **(Currently Amended)** A system comprising:
    - a technical support center;
    - a packet switching network coupled to the technical support center by a first interface line;
    - at least one access server coupled to the packet switching network by a second interface line;
    - where the at least one access server is configured to communicate network information to the technical support center through the packet switching network;
    - where the at least one access server includes at least one hardware subsystem, at least one software subsystem, and embedded software operable to collect and analyze status information from the at least one hardware subsystem and the at least

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one software subsystem to detect a problem with any one of the at least one hardware and software subsystems or the second interface line;

wherein the embedded software comprises:

a hardware health status monitor subsystem;

a software health status monitor subsystem; and

a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for detecting problems encountered by the hardware and software subsystems;

where the status information includes error messages from any one of the at least one hardware and software subsystems or the second interface line;

where the at least one access server is configured to send, in response to the detection of the problem, a first message to the technical center without interrupting the normal operation of the access server, the first message including the status information;

where the least one access server is configured to page a user of the access server responsive to the detection of the problem;

where the at least one access server is configured to respond to a second message generated by the technical support center requesting further information regarding the problem.

**9. (Currently Cancelled)**

**12. (Currently Amended)** A network device that can be coupled to a packet switching network by an interface line to communicate with a technical support center that is also coupled to the packet switching network, the network device comprising:

a hardware subsystem;

a software subsystem; and

means for monitoring the status of the hardware and software subsystems and the interface line, the network device capable of transmitting a first message to the technical support center while maintaining normal operation, the first message transmitted in response to the monitoring means detecting a problem with one of the hardware subsystem and the software subsystem, the first message transmitted prior to failure of the one of the hardware subsystem and the software subsystem, the first message notifying the technical support center of the problem and indicating the status of the hardware subsystem and the software subsystem;

where the means for monitoring further comprising:

a hardware health status monitor subsystem;

a software health status monitor subsystem; and

a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and a software health status monitor subsystem, for collecting status information provided by the software

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health status monitor subsystem and the hardware health status monitor subsystem, and for detecting problems with the hardware and software subsystems;

where the means for monitoring includes means for paging a user to alert the user of the problem;

where the network device is capable of sending additional information regarding the problem to the technical support center in response to receiving a second message from the technical support center, the second message generated by the technical support center in response to the first message.

**19. (Currently Cancelled)**

**20. (Currently Amended)** The network device of ~~claim 19~~ claim 12, the first message transmitted in response to the remote diagnostic embedded process subsystem detecting an error message from the one of the hardware subsystem and the software subsystem.

***Allowable Subject Matter***

4. Claims 1-3, 8, 12, 13, 20, 21 and 29 are allowable over prior art of record in light of applicants' amendments and arguments presented in Amendment filed May 5, 2007 and Interview conducted on May 23, 2007.

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5. The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of "wherein the embedded software comprises: a hardware health status monitor subsystem; a software health status monitor subsystem; and a remote diagnostic embedded process subsystem for communicating with the hardware health status monitor subsystem and the software health status monitor subsystem, for collecting status information provided by the software health status monitor subsystem and the hardware health status monitor subsystem, and for detecting problems encountered by the hardware and software subsystems" as recited in independent claims 1, 12, and 21.

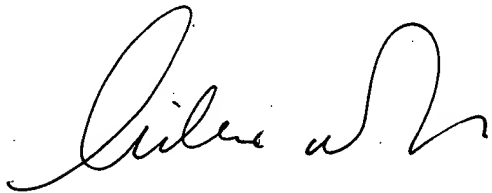
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Michael Won", with a stylized flourish at the end.

**MICHAEL WON**  
**PRIMARY EXAMINER**

May 23, 2007